

REMARKS

I. Status of the Claims

In a Preliminary Amendment filed on September 6, 2001, Applicants canceled claims 1-16 and added new claims 17-100. In a Response to Election of Species Requirement, Applicants elected, with traverse, claims 17-20, 28, 39, 40, 42-53, 56, 57, 63, 74, 75, and 77-100 on January 22, 2004. In a conversation with Examiner Elhilo in March 2004, the election of species was revised to encompass claims 17-19, 28, 39, 42-51, 53, 56, 57, 63, 74, and 77-100. In the present Office Action dated April 5, 2004, the Examiner admits that "since no prior art [can] be found to anticipate or render obvious the elected species, the Examiner has extended the search of the Markush-type claim with respect to a nonelected species, and accordingly, claims 21-25, 30-37, 40-41, 54-55, 58-60, 64-72, 75-76, and 78 are withdrawn from further consideration." Office Action at page 5, lines 13-16.

As such, claims 17-100 are pending. Claims 21-25, 30-37, 40-41, 54-55, 58-60, 64-72, 75-76, and 78 are withdrawn from consideration by the Examiner but claim 78 was elected by Applicants for prosecution in the Response filed on January 22, 2004. In addition, the status of claims 26, 27, 61, and 62 is unclear, as discussed further *infra* at page 5. Further, claim 29, which is indicated as allowable, is not included in the list of elected claims that were examined. Finally, claims 20, 38, 52, and 73 are listed neither as withdrawn nor elected, yet both claims stand rejected.

Thus, Applicants request that the Examiner clarify the status of all claims in view of Applicants' election and the "extended" search conducted by the Examiner. In

particular, at the very least, the elected claims should be expanded to include claims 20, 29, 38, 52, and 73. If the Examiner believes a telephone conference could be useful in resolving any of these issues, he is respectfully urged to contact Applicants' undersigned counsel at 202.408.4345. No claims amendments are made by this Reply.

II. Allowable Subject Matter

Applicants would like to thank Examiner Elhilo for indicating that claims 28-29, 39, 43, 63, and 74 contain allowable subject matter. Office Action at page 8. However, Applicants will continue to prosecute all the pending claims at this time.

In addition, Applicants respectfully request that the Examiner consider allowing claims 64 and 78, as these claims recite parallel subject matter to that determined allowable by the Examiner in claims 29 and 43.

III. Restriction Requirement

In the present Office Action, the Office has finalized the restriction requirement originally set forth in the Office Action dated December 22, 2003. Present Office Action at pages 2-5. The Office states that the claims "do not contain a special technical feature that defines a contribution over the prior art." *Id.* at page 4. The Office bases this conclusion on the use of Markush claims wherein a single claim defines alternatives, chemical or non-chemical. *Id.* at page 2. Applicants respectfully disagree for the reasons of record and for the additional reasons presented below.

However, to be fully responsive, Applicants maintain their election, with traverse, the species identified in the Response to Election of Species Requirement filed on

January 22, 2004 and revised in a subsequent conversation with the Examiner in March, 2004, i.e., claims 17-19, 28, 39, 42-51, 53, 56, 57, 63, 74, 75, and 71-100.

Any international application must relate to one invention only or to a group of inventions so linked as to form a single general inventive concept. M.P.E.P. § 1850 (8th ed. Rev. 2, 2004). Under PCT Rule 13.2, the requirement for unity of invention is fulfilled when there is a technical relationship among a group of inventions involving one or more of the same or corresponding special technical features. "Special technical features" are defined as "those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art." PCT Rule 13.2.

In this case, contrary to the Examiner's position, Applicants' claims do recite "special technical features." In particular, all of the claims are drawn to a process for dyeing keratin fibers by applying a composition comprising (a) at least one compound comprising at least one active methylene group as claimed (chosen from compounds of formulas (I) to (XVII)) and (b) at least one compound chosen from aldehydes, ketones, quinones, diminoisoindoline derivatives, and 3-aminoisoindolone derivatives as claimed. In this instance, all the possible alternatives all share component (a), i.e., at least one active methylene group and component (b), i.e., compounds containing either C=O or C=NH group (which react in a similar manner with components comprising at least one methylene group) with the proviso that a coloration is achieved without an oxidizing agent. With this special technical feature present in every claim, Applicants assert that the requirement for unity of invention is fulfilled.

Furthermore, the Office again has not explained why there is no single general inventive concept. See Office Action at page 3, line 11-page 5, line 7. Accordingly, Applicants maintain for the record their request that the restriction requirement be withdrawn.

IV. Claim Rejection Under 35 U.S.C. § 112

The Office has rejected claims 26-27 and 61-62 under 35 U.S.C. § 112, second paragraph as indefinite for failing to particularly point out and distinctly claim the invention. Office Action at page 5.

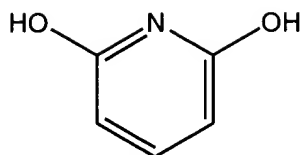
In this rejection, the Office cites withdrawn claims 26-27 and 61-62. The pending claims that read on the elected species are claims 17-19, 28, 39, 42-51, 53, 56, 57, 63, 74, and 77-100. See Response to Election of Species Requirement filed January 22, 2004 at page 2 and subsequent conversation with Examiner in March, 2004. If Claims 26-27 and 61-62 are included in the Office's subsequent expanded search, Applicants request that the Office state on the record the claims that are now included within this search. Because it is unclear from the Office Action which claims are now under consideration, Applicants request the withdrawal of this rejection as directed to claims withdrawn from consideration until the record reflects the current status of those claims under consideration.

V. Claim Rejection Under 35 U.S.C. § 103

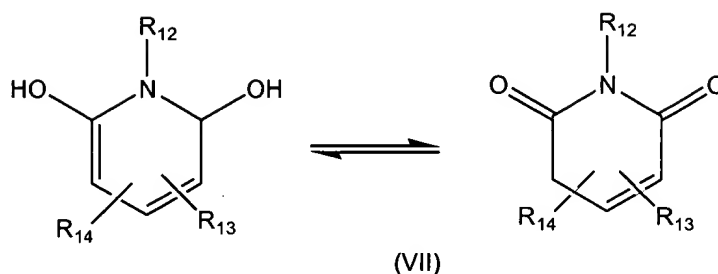
The Office has rejected claims 17-20, 38, 42, 44-53, 56-57, 73, 77, and 79-100 under 35 U.S.C. § 103 as unpatentable over U.S. Patent No. 5,034,014 to Wenke ("Wenke"). Office Action at pages 6-8. Applicants respectfully disagree and traverse the rejection for the following reasons.

The Office asserts that Wenke teaches a method of dyeing hair using an aqueous composition comprising 2,6-dihydroxypyridine that is similar to the claimed formula (VII) when R₁₃ and R₁₄ are both hydrogen atoms in formula (VII). *Id.* at page 6. In addition, the Office states the composition further comprises 2,4-dihydroxybenzaldehyde, i.e., an aromatic aldehyde, similar to the claimed formula (XVIII). *Id.* It is on this basis that the Office states that because Wenke teaches a method for dyeing hair and a hair dye composition comprising a pyridine compound and aromatic aldehyde similar to those claimed, these similarities establish a prima facie case of obviousness *Id.* at pages 7-8 (citing *In re Payne*, 203 U.S.P.Q. 245 (Fed. Cir. 1999)).

Applicants disagree. Although a prima facie case of obviousness may arise among chemical compounds having close structural similarity, this is not an automatic conclusion. *See In re Elpern*, 326 F.2d 762, 767, 140 U.S.P.Q.2d 224, 228 (C.C.P.A. 1964). As illustrated below, Wenke's structure differs from formula (VII).



2,6-dihydroxypyridine (Wenke)



In fact, the difference between Wenke's composition and formula (VII) is not just a mere $\text{-CH}_2\text{-}$ group in homologous chemical structures but the difference between a hydrogen and the R_{12} substituent which is chosen from substituted or unsubstituted alkyl groups or substituted or unsubstituted aryl groups. See claim 17. R_{12} is not a hydrogen but, at a minimum, a methyl (-CH_3), and as such, does not implicate an adjacent homolog.

Generally, hydrogen is an element that cannot be separated into simpler substances by chemical means. See Brown, Theodore L., et al. CHEMISTRY: THE CENTRAL SCIENCE 790, G-7 (5th ed. 1991). Unlike hydrogen, the R_{12} substituents are composed of two or more elements united chemically in definite proportions and thus, can be broken down into more simpler substances. In other words, the R_{12} substituents are different from hydrogen.

In *In re Elpern*, the court determined that in cases where a compound is a member of homologous series and the prior art discloses a nonadjacent member of that

series, there is no legal presumption of obviousness based on structural similarity. 140 U.S.P.Q. at 228. As such, Wenke and formula (VII) may be members of a homologous series but Wenke discloses nonadjacent members of that series and thus, fails to establish a *prima facie* case of obviousness.

The Office cites *In re Payne*, 203 U.S.P.Q. 245 (C.C.P.A. 1979) for the assertion that structural similarity supplies the requisite motivation under an obviousness inquiry. *In re Payne*, however, is distinguishable from the present case. In *Payne*, the prior art disclosed compounds with pesticidal activity having *one* or *three* carbon atoms between two sulfur atoms, whereas the claimed compounds had *two* carbon atoms between two sulfur atoms with one of the intervening carbon atoms being part of a carbamoyloximino moiety. 326 F.2d at 767, 203 U.S.P.Q. at 255. The court described the prior art as “bracketing” the claimed compound. Unlike *Payne*, Wenke does not “bracket” Applicants’ claimed invention. Instead, Wenke’s disclosure of 2,6-dihydroxypyridine is a disclosure of only that compound. The disclosure does not suggest any possible alternatives or equivalents. As such, Wenke provides no motivation to modify or criteria of alternatives for 2,6-dihydroxypyridine under an obviousness inquiry.

Wenke also fails to show even a suggestion of any substituents on carbon numbers 3, 4, and/or 5. At these positions in formula (VII), substituent R₁₃ is chosen from hydrogen; alkyl groups, optionally substituted; and aryl groups, optionally substituted and R₁₄ is chosen from hydrogen; nitrile groups; alkyl groups, optionally substituted; and –COOR groups where R is chosen from hydrogen and alkyl groups, optionally substituted. See claim 17.

In addition, to establish a prima facie case of obviousness, among other things, a prior art reference must teach or suggest all the claim limitations. M.P.E.P. § 2143. Here, Wenke fails to teach all the claim limitations. In particular, Wenke teaches treating the hair with an aqueous solution containing an aromatic amine, an aromatic aldehyde, 2,6-dihydroxypyridine, and an *oxidizing agent*. Col. 1, ll. 5-10. Claims 17-20, 38, 42, 44-53, 56-57, 73, 77, and 79-100 all recite that a coloration of the at least one keratin fiber is achieved *without* an oxidizing agent. Thus, Wenke fails to teach all the claim limitations. For at least these reasons, Applicants respectfully request the withdrawal of this rejection.

VI. Conclusion


In view of the foregoing remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: August 5, 2004

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